The Socioeconomic Impact of HIV/AIDS in the Socialist Republic of Viet Nam

Prepared by the POLICY Project in collaboration with the Community of Concerned Partners, Viet Nam

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Contents

Abbreviations

AEM	Asian Epidemic Model
AIDS	Acquired immunodeficiency syndrome
ARV	Antiretroviral
AZT	Zidovudine
BCC	Behavioral change and communication
BSS	Behavioral Sentinel Surveillance
CUP	Condom Use Program
ddI	Didanosine
GIPA	Greater involvement of people living with HIV/AIDS
GPO	Government Pharmaceutical Organization (Thailand)
HAART	Highly active antiretroviral therapy
HIV	Human immunodeficiency virus
IDU	Injecting drug user
IEC	Information, education, and communication
MAP	Monitoring the AIDS Epidemic (network)
MDGs	Millenium Development Goals
MOH	Ministry of Health
MOLISA	Ministry of Labour, War Invalids, and Social Affairs
MSM	Males having sex with males
MTCT	Mother-to-child transmission
NASB	National AIDS Standing Bureau
NGO	Nongovernmental organization
OI	Opportunistic infection
OOP	Out-of-pocket (spending)
OVC	Orphans and vulnerable children
PLWHA	Persons living with HIV/AIDS
PMTCT	Prevention of Mother-to-child transmission
RMB	Yuan Renminbi (China)
SARS	Severe acute respiratory syndrome
STI	Sexually transmitted infection
TB	Tuberculosis
UN	United Nations
UNAIDS	Joint United Nations Program on HIV/AIDS
UNDP	United Nations Development Program
UNGASS	United Nations General Assembly Special Session
VCT	Voluntary counseling and testing
WHO	World Health Organization

Executive Summary

Several countries bordering Viet Nam have experienced rapid increases in HIV infection rates in the last few years. During the 1990s, the HIV/AIDS epidemic also expanded quickly in Viet Nam. As of April 2003, Viet Nam had recorded 64,801 people infected with HIV, although estimates put the figure more realistically between 150,000 to 200,000. Major factors contributing the epidemic include a thriving commercial sex industry in which condom use is not the norm and sex workers are targeted with punitive actions rather than monitored for health problems; frequent population migration; injecting drug use; substantial sexual links between drug users and other communities; limited public discussion of HIV/AIDS; and pervasive stigma.

The HIV/AIDS epidemic in Viet Nam is still in the "concentrated epidemic" stage. The disease has spread rapidly in specific subpopulations, particularly among injecting drug users (IDUs), sex workers, and males who have sex with males (MSM); however, it is not yet well established in the general population. However, the current status of the epidemic does not mean that it is compartmentalized or restricted to these groups. The active networks of risk within and among these subpopulations and the general population will determine the epidemic's future course.

HIV/AIDS affects social and economic development at many levels: individual, household, community, business, governmental, and macroeconomic. When a person becomes sick with AIDS, his or her family faces increased expenditures for care and often has to sell productive assets. Other family members may need to stay home from school or work to provide care. When the person dies, the resulting loss of income can push nonpoor families into poverty.

Children often suffer the most when a parent dies from HIV/AIDS. They not only lose the love and support of a parent, but may miss school or fall behind. The loss of educational opportunities can permanently hinder future employment prospects.

The health sector is affected by the growing HIV/AIDS epidemic in several ways. There is an increased demand for health services, both to provide care and treatment for those who are infected and to support prevention efforts. Health sector expenditures related to HIV/AIDS care and prevention are likely to increase 20-fold in the next 10 years. The additional expenditure and attention to HIV/AIDS can reduce the resources available for other health priorities.

Substantial macroeconomic effects could occur if the epidemic becomes much worse. Deaths to productive workers and increased costs of health care, recruitment, and training can seriously erode profits and reduce international competitiveness; however, these effects may not be substantial if the epidemic can be contained.

The gap between funds available in 2003 from all sources and those needed for a comprehensive program of prevention, care, and treatment by 2007 is estimated to be as much as US$178 million.

There is a clear need for urgent action such as the following:

- HIV-prevention interventions are highly cost-effective. A comprehensive prevention program based on best practices from the region could avert two-thirds of the infections that might otherwise occur in the next seven years.

- The provision of care and treatment for people living with HIV/AIDS (PLWHA) is essential and affordable.
- Mobilization of human and financial resources via a coordinated multisectoral response is key to preventing long-run economic devastation.
- Increased support of PLWHA is necessary to include people affected by HIV/AIDS and vulnerable groups in policy and program dialogue crucial for the design of high-quality, user-friendly services.
- An in-depth assessment of social and economic impacts of HIV/AIDS is essential to national development plans and poverty reduction strategies.

I. Status of the Current HIV/AIDS Epidemic in Viet Nam

Current Estimates of HIV Prevalence

Like a gathering swarm of locusts, HIV is still imperceptible, but nonetheless threatens impending peril as the epidemic gains momentum in Viet Nam. According to the Monitoring the AIDS Pandemic (MAP) Network in 2001, the late introduction of HIV in the Asia Pacific Region resulted in great variability between and within countries with evidence of "rapidly growing epidemics" in different population groups in China, Indonesia, and Viet Nam.

The HIV epidemic in Viet Nam is still in the "concentrated epidemic" stage. The disease has spread rapidly in specific subpopulations, particularly among injecting drug users (IDUs), sex workers, and males who have sex with males (MSM); but, it is not yet well established in the general population. However, the current status of the epidemic does not mean that it is compartmentalized or restricted to these groups. The active networks of risk within and among these subpopulations and the general population will determine the epidemic's future course. The Ministry of Health (MOH) in Viet Nam, with assistance from the World Health Organization (WHO) and the Joint United Nations Program on HIV/AIDS (UNAIDS), estimated that by the end of 2002 there were 160,000 cumulative HIV infections and that by 2005 the cumulative total will rise to 197,000. According to estimates prepared by the National Committee on AIDS Prevention, Drug, and Prostitution Control, between 130,000 and 200,000 people are currently living with HIV/AIDS and more than 45,000 people will die from the disease by 2005.

The percentage of all adults between ages 15 and 49 who are infected with HIV rose to about 0.3 percent by the end of 2001. While the level of HIV remains low in the general population, it is much higher and growing rapidly in certain subpopulations. HIV prevalence among IDUs increased from 9.4 percent in 1996 to 29.3 percent in 2002, and HIV prevalence among female sex workers increased from 0.6 percent in 1996 to 6.6 percent in 2002.

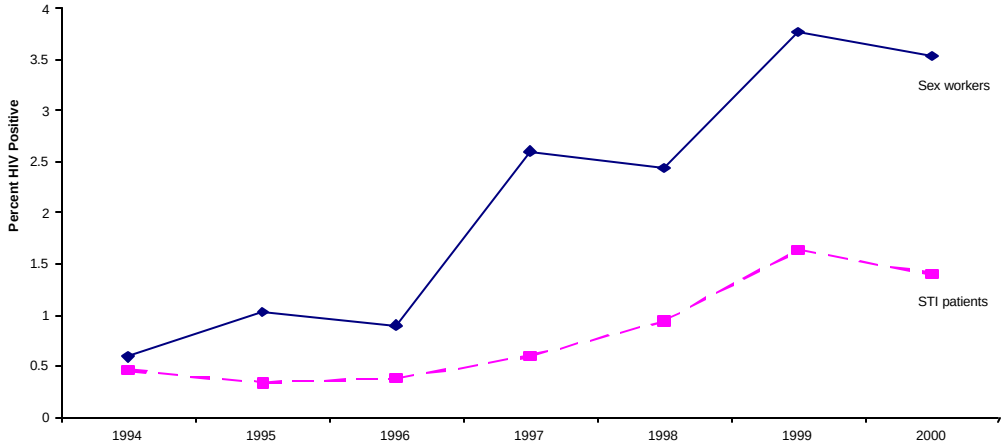
Signs of increasing momentum and spread to the general population are already evident. All of Viet Nam's 61 provinces have reported HIV since 1998, and 12 provinces/cities have each reported more than 1,000 HIV infections. Current adult HIV prevalence is increasing rapidly. Prevalence rates among pregnant women more than doubled in just two years, from 0.19 percent in 2000 to 0.39 percent in 2002. Prevalence rates among military recruits increased almost 29 times in five years, from 0.04 percent in 1996 to 1.17 percent in 2001.

All modes of transmission have been reported. Sharing needles during injecting drug use accounts for approximately two-thirds of all reported HIV infections. As in Thailand, HIV prevalence among IDUs in Viet Nam has increased rapidly. Current estimates suggest that 13.5 to 64 percent of the more than 185,000 drug users in Viet Nam are HIV-infected.

While only limited data on the prevalence of sexually transmitted infections (STIs) are available, WHO currently estimates about 1 million cases of STIs every year, including 150,000 syphilis cases, 150,000 gonorrhea cases, and 500,000 chlamydial infection cases. HIV prevalence, however, has increased more slowly among the population vulnerable to STIs, reaching 2 percent in 2002.

Since 1996, HIV prevalence has risen particularly quickly among sex workers, with concomitant increases in prevalence among STI clinic patients (see Figure 1).

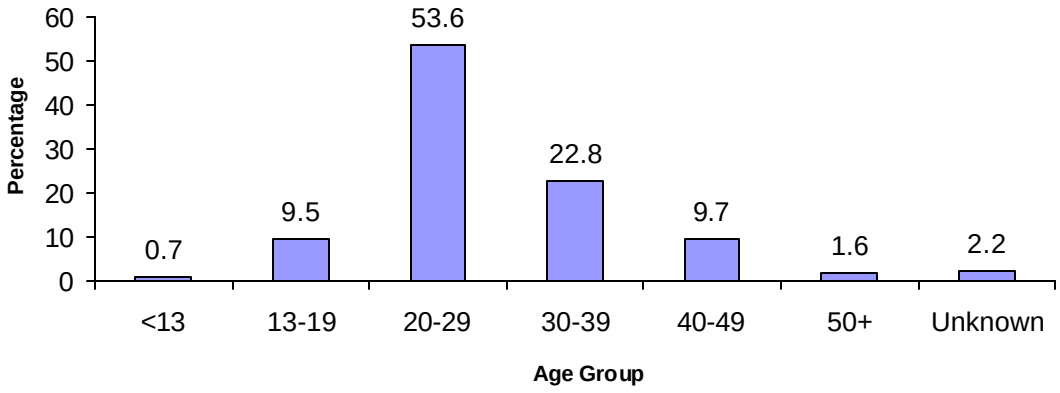
Figure 1. HIV Prevalence in Sex Workers and STI Clinic Patients, Viet Nam 1994–2000



Trends in HIV Infection and Reported AIDS Cases by Age, Sex, and Region

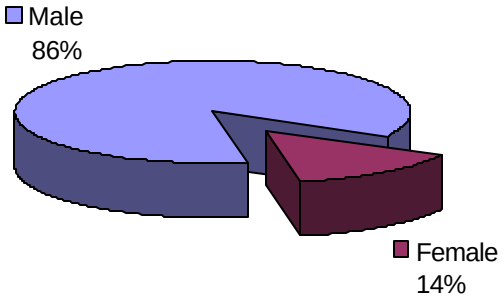
HIV is predominantly affecting young adults in their prime productive and reproductive ages. As shown in Figure 2, more than 64 percent of all infections have been reported among persons 30 years of age or younger. Although it should also be noted that two-thirds of Viet Nam's population is under age 30, 0.6 percent of youth ages 15 to 24 years are HIV-infected. This group is of vital importance as Viet Nam increasingly participates in competitive global markets.

Figure 2. HIV-Infected Cases Distributed by Age Group



Most HIV infections—86 percent of the total—are reported among males (see Figure 3).

Figure 3. HIV Infected Cases Distributed by Sex



The pattern of the epidemic varies considerably between regions. The predominant mode of transmission in the north and central regions is via needle and syringe sharing during injecting drug use. The epidemic among IDUs is particularly focused in Ho Chi Minh City, Ba Ria-Vung Tau, and neighboring provinces in the south and in provinces bordering China in the north. Heterosexual transmission dominates throughout the central Mekong delta area and in provinces bordering Cambodia in the southwest.

Results of Behavioral Sentinel Surveillance

Low rates of HIV today do not mean that the epidemic will not worsen in the future. Virtually all countries in Asia first detected HIV infection in the late 1980s and early 1990s. HIV seroprevalence rates were very low through the 1990s, even among the most vulnerable groups in such countries as China, Indonesia, and Nepal. HIV prevalence rates sharply increased among IDUs in Indonesia in 2000 (and blood donors). In China, "focused," explosive spread of infections among IDUs has led to HIV prevalence rates from 44 to 85 percent in selected communities of Yunnan and Xinjiang provinces. Similarly, since the mid-1990s, an explosive increase in HIV infections occurred among IDUs in Nepal; HIV prevalence has been contained to 0.5 percent of the 15–49 year-old population by effective public health programs that were able to increase consistent condom use among sex workers and their clients.

Future rates depend on patterns of behavior that place people at risk. The measurement of the prevalence of risk-associated behaviors over time is important in tracking the HIV/AIDS epidemic and understanding the potential for the epidemic's future spread. Table 1 presents key indicators from Round 1 of the behavioral sentinel surveillance (BSS) in Viet Nam, conducted during 2000.

Table 1. BSS Indicators, 2000

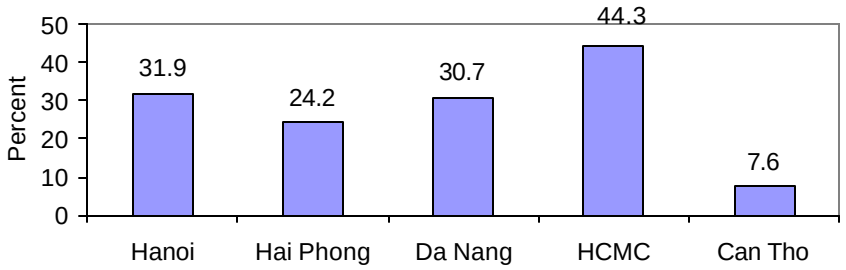
BSS Indicator	Percentage
Direct sex workers using condom with last client	94.7
Direct sex workers using condom with all recent clients	64.8
Clients using condom at last commercial sex	85.0
Clients using condom in all recent commercial sex	72.9
Drug users recently sharing injecting equipment	35.8

Reported condom use among vulnerable populations (i.e., sex workers and their clients) in 2000 was relatively high. However, use within marriage was considerably lower, around 6 percent, and primarily for family planning purposes.

Other behaviors, such as partners outside of marriage, the dynamics of commercial sex, patterns of drug use, and needle or equipment sharing during injecting drug use, are just beginning to be studied. A recent survey of sexual behavior among 493 Vietnamese men (Thang et al., 2002) reports that 68 percent of respondents indicated that commercial sex had become popular in Viet Nam, even though it is illegal and considered a "social evil" along with drug use. More than 50 percent of men have engaged in sex with sex workers before age 25. During the six months preceding the interviews, more than 45 percent of men had engaged in sex with a sex worker more than five times, and less than 12 percent of respondents reported having sex with only the same person during that same period. (It is notable that the randomly selected, stratified sample of respondents ages 18–55 was representative of five strata: university students, factory workers, government officials, businessmen and service providers, and mobile workers.)

A number of studies conducted in major cities indicate that drug-use patterns are shifting rapidly from smoking to injecting drug use. Drug users are sexually active, and the rate of condom use among them is relatively low. Based on data from the 2000 round of the BSS, Figure 4 shows that reported needle sharing ranges from about 8 to 44 percent among different IDU populations.

Figure 4. Percentage of IDUs Who Shared Needles or Syringes in the Past Six Months



Other Factors Promoting HIV/AIDS in Viet Nam

A Thriving Commercial Sex Industry. Despite an official policy that maintains that prostitution is illegal and should be eliminated, government data indicated that there were 300,000 sex workers in Viet Nam in 1994, with 70,000 in Ho Chi Minh City, 13 percent of whom were teenagers.

As in Thailand, men in Viet Nam are more likely to engage in commercial sex with female sex workers than in casual sex and may have many concomitant sexual partners. The estimated demand for commercial sex acts per week in Viet Nam totaled 4 million in 1994. However, street-based sex workers may be arrested if they carry condoms.

A recent survey in Cambodia of direct and indirect sex workers (Lowe, 2003) found that while most sex workers are Khmer, many migrate or are trafficked from other countries, especially Viet Nam. While a 100% condom use program (CUP) is being implemented among direct sex workers in brothels, many aspects of the 100% CUP violate the human rights of sex workers and serve to further hinder achievement of prevention program goals. Qualitative data suggest that there may be a trend for direct sex workers to move to indirect sex work and for an increasing number of male clients to seek commercial sex without condoms.

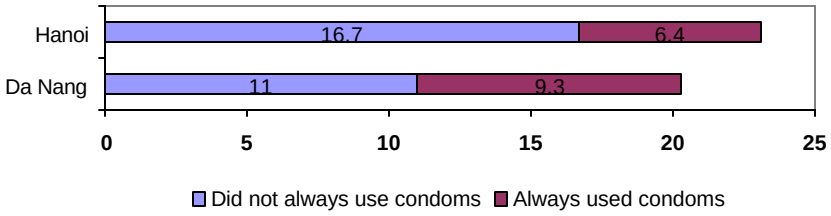
A recent census of sex workers in Cambodia found 1,645 ethnic Vietnamese sex workers in three of the most densely populated (Cambodian) provinces. It is estimated that between 5,000 and 60,000 sex workers in Cambodia are of Vietnamese origin. HIV moves back and forth across the borders and between urban and rural locations, along client and sex worker routes.

Frequent Population Migration. The transition of Viet Nam's economy from a subsidized to a free-market economy, and the introduction of the *Doi Moi* ("renovation") policy, have led to attitude and lifestyle changes along with an expansion of private enterprise, foreign investment, tourism, and labor-intensive projects. These changes are accompanied by an expansion of the entertainment and service industries. At the same time, urbanization and population mobility have increased in response to the development of industrial zones. These various transformations, along with the fact that Viet Nam is located in that part of Asia experiencing widespread HIV/AIDS, have made the nation vulnerable to an acceleration of the HIV/AIDS epidemic.

Limited Public Discussion and Pervasive Stigma. Viet Nam faces a challenge in expanding information, education, and communication (IEC) programs to reach vulnerable groups, including youth and rural subpopulations. Limitations in collaborating mechanisms circumscribe integration of HIV/AIDS programs into other sectors. Even though a number of provincial authorities have mobilized responses to the epidemic, the commitment and capacity among some local authorities is not yet particularly strong. While public awareness about HIV is relatively high, dialogue on HIV/AIDS-related issues remains limited. Moreover, discrimination and stigmatization of people infected and affected by HIV/AIDS make prevention, care, treatment, and support that much more difficult.

Relationship Between IDU and Generalized Heterosexual Epidemics. Substantial sexual links exist at the interface between drug users and other communities. Male and female drug users buy sex as well as sell it. As shown in Figure 5, almost 17 percent of male IDUs in some Vietnamese cities reported recent unprotected sex with a sex worker, clearly demonstrating the potential for rapid development of a generalized epidemic.

Figure 5. Percentage of Drug Injectors Who Bought Sex in the Last Year, by Consistency of Condom Use, Viet Nam, 2000



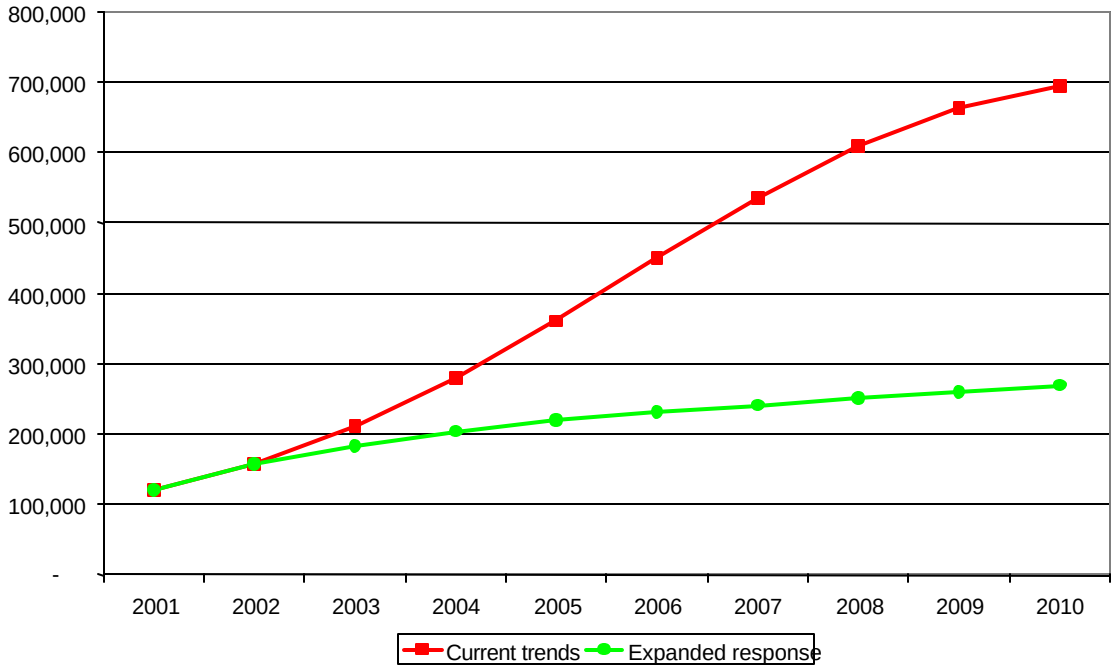
Projections of the Future Epidemic

The dire probability exists that the HIV/AIDS epidemic in Viet Nam will become far more widespread if measures are not taken now to check its progress. Evidence already points to intensification of HIV prevalence in young vulnerable populations and geographic expansion of the epidemic throughout Viet Nam. The infection of young male IDUs also increases the risk of sexual transmission as these men expose their wives as well as casual and commercial sex partners to the disease.

Using the Asian Epidemic Model (AEM), researchers have demonstrated that the number of HIV infections attributable to IDUs during a 15-year period is greatest when the epidemic among IDUs begins in advance of a generalized (non-IDU) heterosexual epidemic, as is the case in Viet Nam. Application of the model indicates that HIV prevalence could increase by more than 170 percent during a 15-year period if IDU prevalence is not kept under control. Over time, transmission by sex work clients and IDUs to their regular female sex partners constitutes a substantial part of the heterosexual transmission component of the epidemic. Clearly, maintaining HIV prevalence at low levels among IDUs during the early stages of a heterosexual transmission-driven epidemic can buy critical time to address the potential of rapid heterosexual transmission.

Figure 6 depicts future projections of the epidemic in Viet Nam, based on estimates determined by country representatives using the GOALS Model (Regional GOALS Workshop, Bangkok, Thailand, December 2002). The "current trends" line assumes no significant expansion of current response efforts, whereas the "expanded response" assumes nearly full coverage of all prevention interventions. According to this estimate, an expanded response could avert more than 400,000 HIV infections in Viet Nam by 2010.

Figure 6. Number of People Living with HIV/AIDS



Various future projections of the epidemic are possible, but two scenarios represent the range:

- In the absence of measures to limit spread of the disease, Viet Nam might expect a gradual rise in HIV prevalence to 5 to 10 percent and suffer the consequences of a much more serious epidemic; or
- Effective action now can limit the HIV/AIDS epidemic to low endemic levels such that prevalence would eventually decline, as in the case of Thailand and Cambodia.

Economic and Social Impacts of HIV/AIDS in Viet Nam

As of April 2003, Viet Nam had recorded 64,801 cases of HIV infection. Although the scale of the impacts of HIV/AIDS seriously outstrips the scale of reported numbers, the impacts are difficult to observe because AIDS is a slow-onset disease whose impacts are felt one household at a time.

It is unfortunate that in those countries most heavily affected by HIV/AIDS little is known about the ways in which the epidemic affects the countries' social and economic development. Where such data have been available, they have proven particularly useful not only in creating greater awareness of the impacts of the disease, but also in identifying ways in which the epidemic can be mitigated. For example, simulations conducted by the World Bank (1993) have indicated that HIV/AIDS will have a severe impact on macroeconomic growth as a consequence of reductions in savings and productivity. Results from these analyses, which have estimated an already significant reduction in per capita income among the 10 worst-affected sub-Saharan countries, have been instrumental in encouraging investment in both HIV/AIDS prevention and care.

In Viet Nam, the epidemic is likely to affect individuals, households, sectors of society, and national social and economic development in a number of ways. HIV/AIDS is already known to be a leading cause of adult illness and mortality in many countries surrounding Viet Nam (e.g., Cambodia), affecting a large percentage of the adult population at its peak years of productivity and income-earning capacity. However, even as the impact of HIV/AIDS in Viet Nam has gradually become apparent at the collective macro level, the epidemic is beginning to affect individuals and households, although less visibly than at the collective level.

II. Socioeconomic Impacts of HIV/AIDS on Individuals and Households

A young Vietnamese construction worker crosses a busy street in Hanoi. Struck by a taxi, he is immediately aware of his injured condition. By contrast, that same worker, infected with HIV by a sex worker or a shared needle, may experience a fever for a few days but does not connect what appears to be a minor illness with his sexual encounter or needle sharing. Within a week or two, he forgets all these passing details. He may live in ignorance of his infection for a decade before the advent of full-blown AIDS. In that interval and in ignorance of his condition, he can infect many more people. Eventually, his illness will prevent him from working and providing for a wife and children, who may descend with him into poverty. His medical expenses only exacerbate the family's perilous downward economic spiral. When finally some opportunistic infection such as tuberculosis (TB) or pneumonia takes his life, he might still be ignorant of the causal links between his behavior, his poverty, and his premature death.

Financial Impact

One of the most frequently observed ways in which HIV/AIDS affects households and individuals is through the sudden and tragic loss of income and economic security as household earnings decline and medical expenses increase. Household resources erode quickly while exposure to economic risk is exacerbated by the stress of illness as, first, adults and, then, children become caregivers for sick family members. Owing to the burden of HIV/AIDS, female-headed households generally undergo the most severe distress. In responding to the needs of children who have lost one or both parents to HIV/AIDS, extended families become further impoverished and indebted. Research conducted for the United Nations Development Program (UNDP) in the Philippines, India, and Thailand revealed that efforts to cope with HIV/AIDS crippled household income-earning capacity, diminishing the resources of extended family members and causing family members to turn to self-employment in the informal sector (Bloom and Godwin, 1997).

Per capita consumption expenditure is low in Viet Nam, with 59 percent allocated to food. Most households have no reserves to pay for a sudden increase in health care expenditures or to weather a sudden loss in income. As a result, AIDS can cause poor households to dissolve and push nonpoor households into poverty.

A 1999 survey conducted by the Hanoi Research and Training Center for Community Development (Narayan, 1999) reports the following qualitative household wealth indicators described by respondents from among the poorest households in Viet Nam (see Table 2). It paints a picture of limited resources and insecure livelihoods.

Table 2. Qualitative Household Wealth Indicators

Type of Household	Reported Household Wealth Indicators
Poor Households	Live in unstable houses, often constructed with mud
	Lack television or radio
	Unable to save money
	Some have children who cannot attend school or must leave school permanently
	Usually have enough food until the next harvest, although sometimes lack food for one to two months per year
	Unable to use surrounding natural resources to their benefit
Very Poor Households	Live in unstable houses that often need to be rebuilt every two to three years
	Lack wells or easy access to fresh water

Given these profiles and the protracted illness or death of a family member, households that cannot satisfy their need for food or cash undertake other income-generating activities. Poorer families typically initiate low-risk/low-return income-generating activities, which further reduce their ability to save and thus magnify their vulnerability to loss, including loss from HIV/AIDS.

Table 3 (Donahue, 1998) illustrates the types of strategies households use to try to manage loss; while not unique to the HIV/AIDS epidemic, these common responses relate to the size and severity of the loss and relative economic stability of the household and show the diminution of household resources over time.

Table 3. Three Stages of Loss Management

Stage	(Selected) Loss-Management Strategies
1. Reversible Mechanisms and Disposal of Self-Insuring Assets	Seeking wage labor or migrating temporarily to find paid work
	Switching to production of low-maintenance (usually less nutritious) subsistence food crops
	Liquidating savings or other assets such as livestock
	Tapping obligations from extended family or community members
	Borrowing from formal/informal sources of credit
	Decreasing spending on education and nonurgent health care
2. Disposal of Productive Assets	Selling land, equipment, tools
	Borrowing at exorbitant interest rates
	Further reducing consumption, education, or health expenditures
	Reducing amount of land farmed and types of crops
3. Destitution	Depending on charity
	Breaking up household
	Migrating in response to distress

Households and entire communities are linked and made vulnerable in terms of both risk of HIV infection and the capacity to cope with HIV infection and its present and future impacts on other household and community members.

Impact on Work and School

Education is widely seen as critical to social mobility, equality of opportunity, the development process, and poverty alleviation. Children in families affected by AIDS may face reduced opportunities to enjoy the benefits of education. Children, especially girls, are often required to care for AIDS-infected family members and often stay home from school to do so. The death of a parent may further reduce educational opportunities for children. As a result, children's school attendance and educational attainment may suffer.

Research has also shown that children are much less likely to complete their education when a parent, particularly the mother, has died. Studies have demonstrated a strong relationship in Viet Nam between household income and children's academic success (Behrman and Knowles, 1999).

As educational opportunities diminish, the vulnerability of children and youth to HIV infection is expected to increase. HIV/AIDS is causing unprecedented threats to children's well-being, including deepening poverty, the pressure for girls and then boys to drop out of school as financial resources are redirected, the assumption of adult work and care-taking responsibilities, and anxiety and loss of family as siblings are placed with relatives to spread the economic burden of their care.

Stigma, Legal Issues, and Humanitarian Concerns

Repercussions of HIV/AIDS are obscured because the stigma associated with HIV/AIDS persuades many persons living with HIV/AIDS (PLWHA) to keep a low profile and deny their status. The Viet Nam National AIDS Standing Bureau (NASB) of the Ministry of Health (MOH) recently printed "A System of (60) Legal Documents on HIV/AIDS." However, the lack of knowledge of the disease's consequences and resulting reluctance of most national leaders to speak out publicly about the epidemic further contribute to the low visibility of the collective impacts of the disease, thereby fostering an environment of stigma and discrimination. Inadequate knowledge and understanding of HIV lead to unreasonable fears of infection and rejection of those living with the infection/disease. Considered "social evils," persons who are vulnerable or HIV-infected because of injecting drug use or commercial sex work are particularly marginalized.

As described in a recent MOH report (cited by Dang et al., 2003, p.3), "[I]n many places there exists the stigma and discrimination towards people living with HIV/AIDS (PLWHA), which makes their daily life and rehabilitation into the community more difficult." According to provincial reports, only one-third of PLWHA reported that they were accepted by their communities, and stigma was cited as a barrier to participation in support groups.

The first study of HIV/AIDS stigma and discrimination (in Hanoi) was conducted in 2002 (Dang et al., 2003). Based on the reports of 75 key informants (health workers, social workers, women union members, teachers, and educators–wardens working at the grassroots level), the study documented evidence of widespread infringement of rights across many sectors. Examples of some of the most important findings are listed below.

In health care

- Refusal to treat (by physicians and hospitals) on the grounds of HIV status
- Differential treatment as a consequence of HIV status
- HIV testing without knowledge of the patient/client

- Refusal to divulge results of HIV test to a patient/client
- Disclosure of HIV status without consent of PLWHA

In employment

- MOH and the Ministry of Labor, War Invalids, and Social Affairs (MOLISA) stated in an article that "PLWHA not be allowed to do health services, orthopedic surgery, beauty salon operations involving the direct contact with blood and human body fluids."
- Mandatory testing is practiced as a condition of employment.
- Despite legal prohibitions against firing PLWHA on the basis of HIV status, the practice and attitudes of managers are pervasively discriminatory.
- In view of the strong public criticism against drug addicts, awareness about drug addiction is often higher among employees than are risks associated with unprotected sex (prostitution is silently accepted) or issues related to HIV/AIDS.

In legal process, justice, and administration

- Articles within the Penal Code provide for disproportional sentencing and conviction on the grounds of HIV/AIDS status.
- Another government decree states that "PLWHA and people with evolutive gonorrhea, lung tuberculosis have to declare in medical quarantine health form at first frontier entry post," and that "the quarantine health service will inform the local health establishment where will be living the foreigners for providing them with counseling, guideline and treatment."

Impact on Orphans

It is estimated that approximately 22,000 children (under the age of 15 years) in Viet Nam had lost their mothers or fathers or both to AIDS by the end of 2001. As HIV/AIDS moves through families, killing parents and leaving elderly grandparents as primary care providers, some children or adolescents become the heads of household. Others leave abusive or destitute situations to fend for themselves. A growing but undocumented numbers of street children reside in neighboring Phnom Penh (Cambodia) and major cities elsewhere in Southeast Asia.

Recognizing that psychosocial problems relating to loss and bereavement may affect these children's development and behavior, a number of centers "for the care of HIV-affected orphans"—in Ho Chi Minh City, Hai Phong, and the provinces of Quang Ninh, Cao Bang, and Kien Giang—began providing services around AIDS Day 2002 (Sternin, n.d.).

Stigma associated with HIV/AIDS frequently compounds the emotional distress and vulnerability of orphans and children affected by the disease. The scale of the problems facing orphans and children is much larger than the interventions implemented to address them.

Examples from the Region

Studies in Thailand and India (Bloom and Godwin, 1997) found that the consequences of the death of a productive member of the household extend well beyond just lost income. The Thai study found that the economic impacts of an AIDS-related death were particularly severe because AIDS affects young people, reducing the forgone income of the deceased by 30 percent more than households that experienced the death of a main income earner from other causes; and AIDS is more likely to affect an already disadvantaged population with limited coping mechanisms and

alternatives. Studies show that the household impact of HIV/AIDS on the poor will be greater because poorer households are limited.

In a study of the impact of HIV/AIDS mortality on rural households in Chiang Mai, Thailand (conducted during 1992 and 1993; Pitayonon et al., 1997), the economic impact of an AIDS death measured in terms of direct and indirect costs was substantial (and far greater than the impact of death from other causes in the same communities). The direct medical care cost for each HIV/AIDS patient was about US$1,000, equivalent to six months' worth of the average household income and about 25 times the Thai government's per capita health expenditure. Other direct costs include expenses for funerals and mourning rituals, fees charged by additional hospitals, and programs to care for orphans. Family coping responses included spending down savings and borrowing and selling possessions, including land and livestock, thus confirming the intensification of poverty as households respond to HIV/AIDS.

Similarly, a survey of three provinces in China, which included interviews with PLWHA (The Socioeconomic Impact of HIV/AIDS Research Team, 2002), indicated that only 21 percent of respondents retained their employment after becoming infected. The survey confirmed that medical expenses (in-patient and out-patient treatment) of PLWHA far exceeded per capita annual income. With AIDS patients paying three-quarters of medical bills themselves, care and treatment of AIDS patients in China remains a substantial burden for households.

III. Impacts of HIV/AIDS on the Health Sector

The government of Viet Nam has placed great value on the expanded provision of health and social services post-Doi Moi. With a high degree of social organization and in-place community-development mechanisms, Viet Nam's well-developed health infrastructure delivers basic services through a network of 10,000 commune health centers, each reaching approximately 8,000 people. However, a lack of resources has resulted in the imposition of user fees at national, provincial, and district levels (in 1989), while immediate access to health care remains a problem, especially among the rural poor. Scarcity of drugs at the commune level forces patients to purchase drugs at local pharmacies. In short, several challenges to health sector reform remain, providing a backdrop for complementary HIV-related services, including

- Expanding health services to remote areas inhabited by minority groups, which account for 10 percent of Viet Nam's population;
- Modernizing and rehabilitating the health infrastructure in the rest of the country;
- Regulating the fast-developing private sector;
- Balancing the bias toward curative medicine by instituting prevention programs (especially given Viet Nam's relatively high literacy rate);
- Organizing community-based health education/HIV prevention programs;
- Improving supervisory and management capacities and oversight of referral at each level;
- Ensuring rapid drug procurement;
- Addressing multidrug-resistant TB; and
- Providing sustainable, effective HIV/AIDS services in both urban and rural settings.

HIV/AIDS affects the health sector in a number of ways. First, by increasing the demand for health care services, HIV/AIDS can raise costs and reduce resources available for other health needs. Second, HIV/AIDS can affect the supply of high-quality health care by reducing the availability of trained doctors, nurses, and other health care professionals.

Demand for Services and Impact on Health Care System

As the number of people with HIV/AIDS increases, the demand for health care services will increase. Among the many services required to respond to the epidemic are palliative care to treat pain and other symptoms, the treatment of opportunistic infections (OIs) (such as TB), prophylaxis to prevent OIs, and antiretroviral (ARV) therapy. In addition, the health sector is responsible for providing many important prevention programs such as the treatment of STIs, voluntary counseling and testing (VCT), programs for the prevention of mother-to-child transmission of HIV (PMTCT), distribution of condoms, and safe blood transfusions.

The requirement for hospital beds illustrates the demands on the health care system for HIV/AIDS-related care and treatment. If we assume that each AIDS patient requires an average of 20 days in a hospital each year, then the 6,000 to 7,000 new cases of AIDS this year will require 130,000 hospital bed-days, just 0.2 percent of the available bed-days. However, in the next 10 years, the annual number of AIDS cases is likely to increase to 60,000. This 10-fold increase in hospitalization requirements will cause more resources to be shifted to AIDS and away from other health care priorities.

To expand the prevention program to reach most of the population in need of such services, similarly large increases will be required to make prevention services widely available. Table 4

illustrates the increased health services required in Viet Nam by 2007 to meet the goals of the United Nations Declaration of Commitment on HIV/AIDS.

Table 4. Increasing Service Requirements for Prevention Programs

Service	2003	2007
Condoms distributed	60 million	3.05 billion
Cases of STIs treated	260,000	530,000
Number of VCT sessions conducted	80,000	340,000
Number of pregnant women provided with counseling and testing	300,000	810,000

Source: Schwartlander et al., 2001

Impact on Supply of Health Care Workers

Viet Nam's approximately 850 government hospitals employ about 27,000 doctors and 46,000 assistant doctors. The private sector has developed rapidly in urban centers; in 1995, there were 15,000 registered private practitioners. No HIV infections have been reported among health service employees; however, standard adoption of universal precautions, including training to avoid transmission via needle stick injuries, remains a challenge throughout the health sector. While specific data quantifying the number of health care workers who acquire and/or die of HIV/AIDS each year are not available, the number of workers could diminish as a consequence of HIV/AIDS as the demand for medical services increases.

A survey of 1,178 health workers conducted in 2000 in three provinces experiencing a noticeable spread of HIV revealed a lack of knowledge about HIV/AIDS among doctors and physicians. According to Viet Nam's National Committee for AIDS Prevention and the MOH, more than 94 percent of surveyed doctors and physicians provided incorrect answers to questions about the main symptoms of the disease, and only one-third of respondents had received training in HIV/AIDS prevention (MOH, 2002b). Results demonstrate the need for systemwide preparedness planning to build the skills needed for providing both preventive and curative HIV/AIDS services.

Health Care Expenditures

Requirements for health sector spending on HIV/AIDS are likely to increase by 20-fold or more in the coming years as the number of people needing care grows and prevention efforts expand to cover more of the population in need. Viet Nam spent US$129 per person on health care services in 2000, the last year for which WHO data on spending calculated in "international" dollars are available.[1] Given Viet Nam's population of 80 million, total health spending is currently about 10 billion "international" dollars. At the full level required, total spending in 2007 for HIV/AIDS will absorb 2.1 percent of total health spending, or nearly 5 percent of all public health spending. These comparisons suggest that financing the necessary prevention, care, and treatment services will test the commitment, capacity, and will of the Vietnamese economy. Donor assistance, particularly as it facilitates the transfer of essential technology, will continue to be critical to program success. International assistance from the Global Fund for HIV/AIDS, TB, and Malaria and other donors will provide some of the additional funds; however, much of the increased

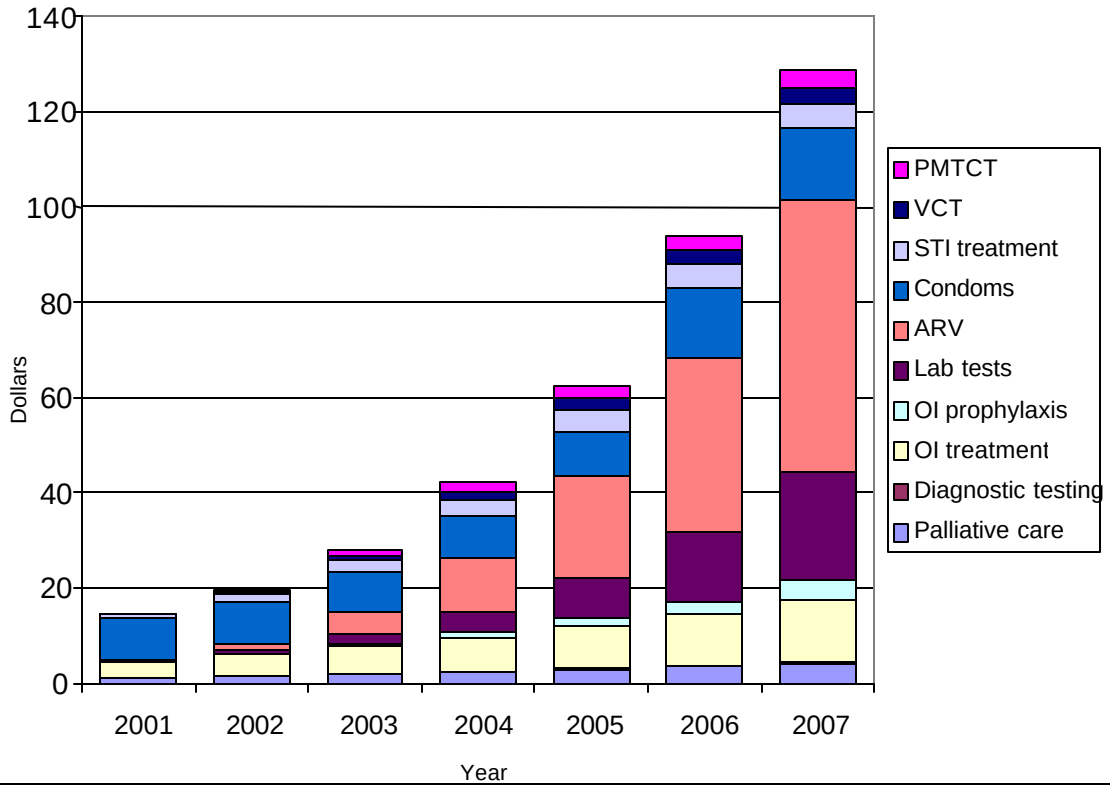
[1] International dollars differ from translation of local currency amounts into U.S. dollars at prevailing exchange rates. Purchasing power parity, or "international" dollars, takes into account the much lower costs of nontraded inputs in low-income countries as compared with the United States and other North Atlantic economies. Most development specialists would regard "international" dollar comparisons as more informative than exchange rates.

burden will have to be paid from national resources, limiting the available funding for other priority health care services.

Neighboring countries provide several lessons in the financing of health care services:

- As one of the first countries in the region to include ARVs as part of its standard care package, Thailand encouraged local private production of generic ARVs, subsidizing triple drug regimens produced by the Thai Government Pharmaceutical Organization (GPO). This measure substantially pushed down the cost of the drugs over time, from more than 30,000 Baht per month (US$720) before 2000 to less than 6,000 Baht per month (US$144) by mid-2001. Regimens now produced by GPO cost only 1,200 Baht per month (US$29), which is the amount most Thais can afford. In 2001, the Thai government provided treatment to 1,500 PLWHA; in 2002, the number expanded to 12,000 PLWHA. By late 2004, ARV distribution will become part of the Thai "30 Baht" national health scheme, enabling all of the estimated 50,000 to 60,000 Thai PLWHA who meet medical eligibility requirements set by the Ministry of Public Health to receive ARVs distributed through provincial hospitals around the country.
- Surveys in three provinces of China (The Socioeconomic of HIV/AIDS Research Team, 2002) show that while funding for AIDS prevention increased more than 10-fold from RMB (yuan renminbi) 11.4 million (US$1.4 million) in 1995 to RMB 92.61 million (US$11.2 million) by 2000, the per capita amount totaled less than US$ 0.01 (RMB 0.06) in the latter year. According to some estimates, China will need US$395 million if it is to achieve reasonable coverage of prevention interventions (only) by 2005, or an annual investment of US$78.5 million. Accordingly, the annual per capita investment must increase more than six-fold to US$0.06.

Figure 7. Estimated Health Sector Costs of HIV/AIDS Prevention and Care (Millions of US$)



Source: UNAIDS, 2002a.

IV. Resource Needs to Address the Impact of HIV/AIDS

As of mid-year 2002, an estimated 130,000 Vietnamese adults ages 15–49 were living with HIV. This number represents just 0.3 percent of Viet Nam's 43 million adults. The fairly low level of HIV prevalence places Viet Nam in an ideal position to implement vigorous prevention programs that, taken together, could help ensure that the disease does not spread beyond a narrow range of subpopulations.

A careful study commissioned by the UNAIDS office in Viet Nam has compiled reasonably complete estimates of Viet Nam's government and donor financial resources available for allocation to the fight against HIV/AIDS.[2] The study's authors gathered data by means of a questionnaire sent to more than 60 organizations offering HIV/AIDS intervention services, including government agencies, international nongovernmental organizations (NGOs), donors, international developments agencies, and specialized agencies of the United Nations. Data collection occurred between April and July 2002. The survey requested information on both recent past and data flows and prospective financing in the year 2003.

Resource Availability, 1997–2003 (selected years)

From 1997 through 1999, spending by donors and government in Viet Nam totaled US$ 22,844,300, an amount just short of US$8 million annually. From 2000 and 2001, spending for HIV/AIDS interventions in Viet Nam by these same entities totaled US$27,807,907, or just below US$14 million per annum. Annual disbursements may thus be estimated to have risen by 75 percent, or at a cumulative annual rate of 25 percent. For 2003, spending was expected to rise to nearly US$27 million (see Table 5).

Table 5. HIV/AIDS Funding Through Government and Donors, by Source, 2003 (US$ millions)

Source	US$ Millions	Percent
Government	4.3	16
International NGOs	6.3	24
Bilateral donors	10.1	38
UN agencies	5.8	22
TOTAL	26.5	100

Source: UNAIDS, 2002b, Figure 4.

As noted, the government's share of total funding is 16 percent, and all international sources account for 84 percent of prospective 2003 spending for HIV/AIDS. Viet Nam received notice on April 25, 2002, of a grant from the Global Fund to Fight AIDS, TB, and Malaria for "Strengthening care, counseling, support to people living with HIV/AIDS (PLWHA) and related community-based activities." The grant, which totals US$4 million for its first two years and US$12 million over five years, has not yet been disbursed. Once disbursement begins, it will add about 10 percent more to international flows.

[2] UNAIDS, 2002b, p. 8. Perhaps because of its brevity and conciseness, the report leaves unclear certain aspects of the period of coverage for funds expended in two periods, 1997 through 1999 and 2000 through 2001. We assumed in the preparation of this report that the amount of US$27.8 million was spent over the full 24-month period, including all of 2000 and 2001. We further assume that the cited amount of US$22.8 million was spent over the 36-month period, including all of 1997, 1998, and 1999. Insofar as analysts subsequently clarify periods of coverage as different from these assumptions, readers can make the necessary adjustments.

The aforementioned study conducted by the UNAIDS office in Viet Nam identified 10 areas of spending for HIV/AIDS interventions. These areas can be ranked, approximately, from largest to smallest amount of resources applied to each intervention by the four sources identified in Table 5 (see Table 6).

Table 6. Principal HIV/AIDS Interventions Supported by Government and Donor Financing

Category of Activities	Brief Description
Providing behavior-change communications (BCC)	Raising awareness among key subpopulations such as young people, sex workers, PLWHA, mass organizations, policymakers
Condom promotion	Subsidies and promotion through social marketing
Surveillance	Capacity building for surveillance and monitoring skills, rapid assessment among key subpopulations
STI management	Diagnosis, treatment, information provision to health workers and key vulnerable subpopulations
Blood safety	Screening and testing of blood
VCT for HIV	System strengthening
Harm minimization amid IDUs	Promoting single-use needles
Health system strengthening for care of PLWHA	Developing clinical guidelines, providing training for health workers
Palliative and related care for OIs associated with HIV	Developing strategic approaches for provision of care, analysis of costs of ARV therapy
PMTCT	Capacity building, provision of ARV drugs for prevention

Source: UNAIDS, 2002a, p. 3.

The data provided in official reports do not include any estimate of private expenditures for HIV/AIDS interventions. As is the case in most low-income countries, the recipient of health services in Viet Nam pays for health care out-of-pocket. From 1995 through 2000, out-of-pocket spending on health averaged 69 percent of the total health spending in the country (WHO, 2002b, p. 216).

Taking into account the ratio of out-of-pocket health spending to public sector and donor-financed spending, the reader may hypothesize that private spending for HIV/AIDS services would be about 2.25 times greater than the recorded amount of government spending shown in Table 5 (see Table 7).[3]

[3] An alternative hypothesis holds that out-of-pocket spending is 2.25 times the sum of government and donor spending. If such is the case, then out-of-pocket spending in 2003 would total US$60 million, and HIV/AIDS interventions spending would total US$86.5 million. Without a survey of actual expenditures, it is not possible to choose between these two hypotheses. The lower estimate may be the better choice pending a survey of private behavior.

Table 7. Estimated Total HIV/AIDS Spending in Viet Nam, Including Out-of-Pocket Spending, 2003 (US$ millions)

Source	US$ Millions	Comment
International donor assistance	22.2	Estimated by UNAIDS on basis of interviews and questionnaire
Government of Viet Nam	4.3	Reports by government agencies to UNAIDS
Out-of-pocket spending	9.6	Estimated as equal to the same ratio of private-to-government spending as prevails for all health services
Total 2003 spending on HIV/AIDS interventions	36.1	Estimated for this report

Source: See Table 5 and accompanying text.

No data are currently available to show conclusively that out-of-pocket private spending for HIV/AIDS in Viet Nam reaches the amounts indicated. However, studies in other low-income countries that included detailed household interviews support the conclusion that a substantial share of spending does come directly from households.

Direct household financing of HIV/AIDS interventions requires continuing consideration. As already noted, the impact of HIV on households can be financially devastating. Both government and donors will be particularly concerned to know the extent to which poor households pay for HIV/AIDS-related health care services.

Resource Requirements for 2007

In support of the UN General Assembly Special Session (UNGASS) on HIV/AIDS in June 2001, UNAIDS prepared estimates for total resource requirements for HIV/AIDS interventions in 2005 (Schwartländer et al., 2001). The Futures Group International, a contributing partner to the UNGASS estimates, updated and extended projections to the year 2007 for 135 countries, including Viet Nam (see Table 8). These unpublished estimates provide detailed financing requirements for 20 interventions recommended for Viet Nam for 2007. These interventions can be further distinguished between those directed at prevention and those directed at care and treatment. These data, together with actual fund availability in 2003, provide a financial summary of the challenge of scaling up HIV/AIDS programs by 2007.

Table 8. Financial Resources Available in 2003, Resources Required Annually by 2007, and Financing Gap to Be Filled (US$ millions)

Finance Category	US $ Millions	US$ Millions
Resources available in 2003		36.1
Total required in 2007		214.0
Of which, requirements for 12 prevention interventions	101.5	
Of which, requirements for 6 care and treatment interventions	112.5	
Financing gap to be filled by 2007 (line 2–line 1)		177.9

Source: See Table 7 and Table 9. Year 2007 requirements include US$101.5 million for prevention, US$101.3 million for care and treatment, and US$11.2 million for orphan care and mitigation.

Resource Gap Analysis

The gap between funds believed to be available for HIV/AIDS programs in Viet Nam in 2003 and those needed for programs in 2007 is US$177.9 million, or five times the level of resources currently available. The annual increment of 25 percent observed from 1997 through 1999 to 2000 through 2001 would have to increase to 50 percent each year from 2003 through 2007 to meet the HIV/AIDS challenge. Although such an increment is not infeasible, it will require dedication and commitment from government, donors, and the private sector.

Of the US$214 million needed by 2007, US$101.5 million will be required for prevention, US$11.2 million for care and support of orphans and vulnerable children (OVCs), and US$101.3 million for care and treatment. The largest expenditure item will be for highly active antiretroviral therapy (HAART). That cost alone, US$57 million, will constitute over one-quarter of total spending on HIV/AIDS interventions in Viet Nam.

V. Long-Term Perspective and Macroeconomic Impacts of HIV/AIDS

HIV and Poverty (Millennium Development Goals)

Among the eight Millennium Development Goals (MDGs), the related 18 targets, and the 48 indicators approved by the UN General Assembly, those linking HIV/AIDS and poverty pose unusual challenges (see Box 1). Achieving Goal Number One, poverty reduction, may be virtually impossible among countries where HIV prevalence exceeds 10 percent.

Box 1. MDGs and the Special Challenge of AIDS

The subtle presence of HIV, the disease's long gestation, and its delayed but terrible burden on those infected and affected separates aspects of the fight against poverty from other aspects of dealing with the disease.

MDGs Closely Linked to the Unique Requirements of the Fight against HIV/AIDS

Goal	Target	Indicator
1. Eradicate extreme poverty and hunger	1. Between 1990 and 2015, halve the proportion of people whose income is less than $1 a day	1. Proportion of population below $1 per day)
6. Combat HIV/AIDS, malaria, and other diseases	7. By 2015, halt and begin to reverse the spread of HIV/AIDS	18. HIV prevalence among pregnant women 15 to 24 years of age
8. Develop a global partnership for development	17. In cooperation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries	46. Proportion of population with access to affordable essential drugs on a sustainable basis

Source: UNDP website on Millennium Development Goals

Ill health in Viet Nam is a major cause of poverty (see Figure 8). The Viet Nam Living Standards Survey (UNAIDS, 2002) sampled the population and, based on survey responses, imputed to sampled households both household income and medical expenses. Figure 8 shows each of the sampled households at that household's income level within the overall sample. A move from left to right on the figure is a move up the income scale.

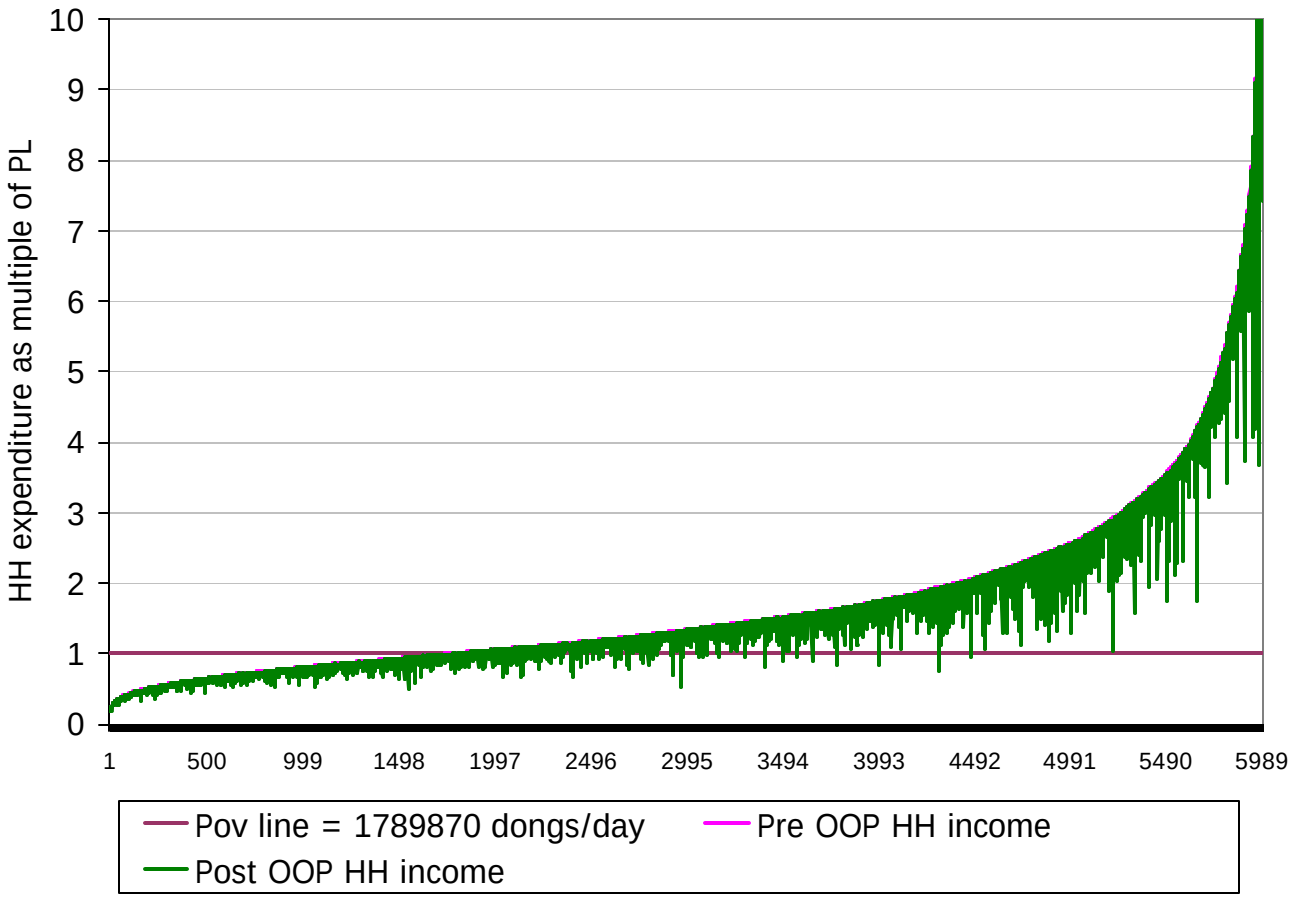
The "drips" in Figure 8 show the out-of-pocket payments (medical expenses) for each household. Some drips are large enough to shift previously nonpoor households below the poverty line. Some previously poor households become even poorer. A comparison of the head count and poverty gap before and after out-of-pocket payments provides a crude idea of the impoverishment caused by out-of-pocket payments. In this case, the head count increases from 34 to 38 percent and the poverty gap from 9 percent of average income to 10.6 percent. Most of the latter (1.3 percentage points of the 1.6 percent increase) is attributable to deepening poverty among households that were already poor before out-of-pocket payments.

Figure 8 depicts all health spending, not just HIV/AIDS intervention spending. However, it offers a fair basis on which to judge how HIV/AIDS spending may push households into poverty.

Viet Nam needs to make every effort now to forestall the spread of HIV. Failure to do so can block progress in the fight against poverty.

Through a global partnership, Viet Nam may succeed in bringing down to more affordable levels the costs of imported pharmaceuticals for care and treatment of HIV/AIDS. In this sense, the goals of disease prevention and global partnership must be pursued in tandem.

Figure 8. How Health Care Out-of-Pocket (OOP) Spending Causes Poverty in Viet Nam



Lost Labor Supply and Productivity

A growing consensus suggests that development proceeds with the gradual build up of human capital, especially through educational attainment and development of market-focused human skills. However, HIV/AIDS can severely impede development. As young adults with young families fall prey to HIV, their capacity to keep children in school diminishes.

Simulation studies based on data from Africa show that, in extreme cases, virtually all past gains in income can be wiped out by the indirect but powerful effect of HIV on schooling and eventual earnings:

> The outbreak of AIDS leads to an increase in premature adult mortality, and if the prevalence of the disease becomes sufficiently high, there may be a progressive collapse of human capital and productivity.
>
> When calibrated to South Africa, the model yields the following results. If nothing is done to combat the epidemic, a complete collapse will occur within four generations (Bell et al., 2003: 2–3).

Independent analyses by other specialists yield similar results that focus particularly on the loss of human capital from the dual effects of early adult death and loss of parental guidance for orphans (Ainsworth et al., 2002; Case et al., 2003; Ferreira and Cavalcanti, 2003).

Viet Nam has yet to reach the HIV prevalence levels that could impart such a catastrophic outcome. Nonetheless, it is the pernicious and hidden presence of the disease that may wrongly lead health managers to delay the hard decisions that are needed to confront the disease with full force.

HIV/AIDS affects the productivity of public and private sector workplaces. The associated costs are predominantly related to increased absenteeism and, subsequently, to the cost of replacing workers affected by HIV/AIDS. Depending on the type of industry, HIV/AIDS can significantly reduce the profitability of private sector businesses. As the epidemic continues to spread through the most productive age groups, it is reasonable to assume that AIDS-related deaths could reduce the size of the workforce by 5 to 10 percent (as occurred in Thailand), exacting an enormous impact on the workforce that is so vital to Viet Nam's future economic development.

To compound matters, beginning with Doi Moi in 1986, Viet Nam's shift from a centrally planned economy to a market economy not only provided growth opportunities but also involved structural changes that resulted in job losses and wage cuts for many. In fact, growth of the labor force has been exceeding employment growth. In addition, the demobilization of military personnel and return of migrants and refugees have increased the number of unemployed. Those without jobs are often relegated to low-wage, seasonal, or part-time employment.

One of the sectors of the economy that is significant in size and particularly vulnerable to the impact of HIV/AIDS is commercial farming (both private and state-run). The workforce in this sector comprises largely seasonal agricultural workers, most of whom are young men who spend significant periods of time away from their families. According to a study of HIV/AIDS in the workplace by the Vietnamese Chamber of Commerce and Industry and Institute of Sociology (Cuong, 2002), these short-term contract workers suffer systematic disadvantages, including lower incomes, no training, no health examinations before beginning work, no regular health checks, no social and health insurance, and almost no participatory rights. However, it is these

"men away from home" who are disproportionately vulnerable to HIV infection and may serve as "bridges" of infection between home and work communities.

The study describes a spectrum of social welfare benefits available to long- and short-term workers, depending on their employment in state-run versus private enterprises. The former generally provides a relatively high welfare commitment, while small and medium-sized enterprises in the private sector often neglect social welfare benefits. Clearly, HIV/AIDS will affect any enterprise's cost of doing business since employer-provided benefits include health, social, and other insurance costs for workers, sick leave for treatment, payment of as much as 50 percent of hospital fees and visiting and relief benefits in cash for workers' funerals and workers' families. In lieu of employers' provision of direct benefits, there is a shift toward increasing employee contributions to welfare funds. According to the Chamber of Commerce study, a worker earns between VND 500,000 and 600,000 per month (about US$38) and to VND 2 to 3 million (about US$171) during busy months but spends 5 percent of his/her income to support social welfare funds that are typically managed by trade unions. Low-wage earners will be increasingly constrained as welfare funds are forced to grow in order to provide some modicum of relief for more and more HIV-infected employees.

In an effort to respond to government decrees ordering HIV workplace programs, the number of companies in Viet Nam undertaking HIV prevention education is increasing. The National AIDS Standing Bureau has issued a handbook that provides a legal framework and guiding principles for workplace prevention and control of HIV/AIDS. However, major industries are still unable to carry out large-scale programs for their full-time workers.

Diverted Resources from Investment to Care

As shown in Table 9, spending on HAART may have to increase by a factor of 11 between 2003 and 2007. Absolute dollar amounts would rise from US$5 million to more than US$55 million. These sums, if not required for ARV treatment, would otherwise be available to support capital investment that could speed Viet Nam's economic growth.

Investing in prevention now can greatly improve prospects for future investment in the infrastructure and capital equipment needed to fuel Viet Nam's economic development. Delay will greatly increase the diversion of potential investment funds into palliative health care and treatment.

Number of HIV Infections Averted Due to Early Implementation of Prevention Interventions

Prevention today forestalls the spread of HIV/AIDS later. International organizations estimate that rapid scaling up of a dozen effective HIV prevention measures will reduce by more than 600,000 the number of infections between 2003 and 2010. Spending requirements will be similarly reduced for eventual care and treatment. Table 9 shows in detail the estimated expenditures required to effect incidence and prevalence reductions. With substantial donor assistance available and continuing commitment by the government of Viet Nam, the Vietnamese people enjoy excellent prospects for fighting HIV/AIDS.

Table 9. Details of HIV/AIDS Program Financing Requirements, 2001–2007
Viet Nam Country Summary: Prevention and Mitigation Financing Requirements
(US$ thousands in 2000 prices)

Viet Nam	Youth-focused interventions	Sex workers and clients	Condom social marketing	Public and commercial condoms	STI management	VCT	Workplace
2001	1,167	301	2,261	6,600	797	150	979
2002	1,780	720	2,060	6,121	1,655	426	1,984
2003	4,370	1,345	2,179	6,688	2,577	883	3,016
2004	5,555	2,081	2,135	6,835	3,571	1,548	4,075
2005	6,722	2,966	2,088	7,055	4,640	2,458	5,161
2006	9,801	3,244	3,559	11,318	4,823	3,003	43,399
2007	9,724	3,284	3,627	11,543	5,015	3,613	43,743

Viet Nam	Blood safety	MTCT	Mass media	Harm reduction	MSMs	Policy, advocacy, administration and research	Total	Orphan care
2001	35	143	490	86	852	1,386	**15,245**	-
2002	35	224	612	91	1,783	1,749	**19,241**	-
2003	36	1,256	1,469	97	2,841	2,676	**29,432**	-
2004	36	1,856	1,713	102	3,975	3,348	**36,831**	-
2005	37	2,489	1,958	108	5,204	4,089	**44,975**	-
2006	37	3,064	2,448	109	5,394	9,020	**99,219**	11,784.41
2007	38	3,673	2,448	111	5,460	9,228	**101,505**	11,212.42

Viet Nam	Cost for Palliative Care	Testing Costs	Cost for Treatment for OIs	Cost for Prophylaxis for OIs	Laboratory HAART Costs	Cost for HAART	Total Costs for All Interventions
2001	1,133,659	11,209	3,329,685	8,253	74,151	185,124	**4,742,080**
2002	1,524,977	25,231	4,479,766	162,284	620,200	1,548,382	**8,360,840**
2003	1,971,625	47,332	5,798,356	448,858	1,962,482	4,899,507	**15,128,160**
2004	2,444,685	78,620	7,212,701	927,018	4,464,965	11,147,174	**26,275,164**
2005	2,985,430	121,541	8,864,996	1,679,868	8,549,179	21,343,772	**43,544,787**
2006	3,571,010	175,541	10,717,033	2,768,126	14,572,379	36,381,216	**68,185,304**
2007	4,224,048	240,218	12,868,545	4,249,579	22,810,572	56,948,584	**101,341,546**

Viet Nam	Adjusted Unit Costs for Palliative Care	Adjusted HAART Cost
2001	87.09304	300

VI. What Can Be Done? The Response to the Threat of HIV/AIDS in Viet Nam

HIV/AIDS is a core development issue with public policy implications that requires the commitment and input from all government and nongovernment actors, particularly PLWHA. Some measures can be undertaken only by government, which has a fundamental obligation to increase investment in HIV control, to provide the public with prevention information about HIV/AIDS, to subsidize the means for practicing safer behavior among those most vulnerable to contracting HIV, to promote and scale up successful domestic and international practices, and to ensure the access of vulnerable groups, especially the poor and marginalized, to prevention and care.

While the government's initial response to the control of HIV/AIDS was rapid, decision makers committed only modest financial and human resources in 1993. Currently, among all programs within the national health portfolio, HIV/AIDS attracts the highest proportion of government funding, indicating the gravity with which the government regards the epidemic. However, relegation of HIV-associated behaviors to "social evils" has also become a major impediment to developing an enabling environment conducive to providing prevention and care to the most vulnerable subpopulations.

Recent mobilization of resources to contain Severe Acute Respiratory Syndrome (SARS) has placed the health care system in Viet Nam under close international scrutiny. On April 28, Viet Nam became the first country to control SARS (according to WHO, quoted in *The Economist*, May 3, 2003). The government demonstrated a commendable ability to mount a multisectoral response through committee action that included the departments of Health, Transportation, Customs, Finance, Education, and Interior (*International Herald Tribune*, May 7, 2003). As of June 1, 2003, the cumulative number of SARS cases in Viet Nam remains at 63, including only five deaths. SARS is a highly visible and fast-moving epidemic. By contrast, HIV/AIDS is largely invisible in the early stages and progresses slowly. However, the need for action is just as urgent with HIV/AIDS as with SARS. A focused effort to prevent new HIV infections can succeed and avert much worse social and economic consequences in the future.

Importance of Prevention

Prevention has maximum impact as part of a comprehensive set of interventions combined with sound fiscal, social, and public health policies that break the silence and stigma surrounding HIV/AIDS and build an inclusive environment enabling all infected and affected people. Recent publications by the Community of Concerned Partners, a coalition of stakeholders engaged with the government to respond to the epidemic in Viet Nam, have highlighted many enabling program elements.

Lessons drawn from decades of addressing the impacts of HIV/AIDS in Africa suggest that the optimal time for action is while national HIV prevalence levels remain comparatively low. Particularly in populous countries such as Viet Nam, low national prevalence rates blur the true picture of the epidemic and its progress. There is a vital need to bring targeted prevention interventions to those most vulnerable to infection; however, targeted interventions are not sufficient to halt the epidemic. More extensive prevention programs that strategically reach various segments of the general population are also critical to determining the outcome of the epidemic and its impact in Viet Nam.

The following combined strategies are essential to a strengthened prevention effort in Viet Nam:

1. *Coordinate HIV, STI, and BSS epidemiological surveillance*. Early warning data systems need to be integrated to identify emerging risks and prevention needs. Data on the cost-effectiveness of interventions, which currently are not collected, are critical to the strategic allocation of resources. Situation analysis and monitoring the intensity of individual, household, and sector problems caused by HIV/AIDS are also essential to planning and implementing effective interventions.

2. *Expand effective harm reduction programs among IDUs.* Even among IDUs, HIV prevalence in some areas is still relatively low, providing an excellent opportunity for intervention. In 1995, a study was conducted on the feasibility and effectiveness of needle exchange programs in Hanoi and Ho Chi Minh City (Quan et al., 2000); however, studies in 1999 indicated that needle sharing remains frequent among IDUs (Abdul-Quader et al., 1999). That same year, the Vietnamese National AIDS Commission began a large-scale intervention among IDUs and sex workers in 20 provinces. However, only minimum services for IDUs are currently available, and 95 percent of IDUs relapse after current reeducation treatment. This points to the need to shift from social order campaigns to integration of harm reduction in demand reduction programs and policies and more broadly into social welfare and health promotion policies. A comprehensive package of HIV prevention interventions for IDUs should include HIV/AIDS education; life skills training; condom distribution; voluntary and confidential counseling and HIV testing; access to clean needles, syringes, and bleach; and referral to a variety of (voluntary) treatment options.

3. *Intervene in the trafficking of women and children*. HIV/AIDS has greatly increased the dangers of trafficking and commercialized child sexual abuse, two global phenomena that profoundly violate human rights. Research, prevention, and mitigation priorities should include attention to women and children trafficked across borders to and from Cambodia, Thailand, southern China, and other countries in the region.

   Development of meaningful partnerships between those in the sex industry (i.e., sex workers, brothel owners, pimps, and clients) and public health officials could increase the quality and effectiveness of prevention and mitigation programs. Providing sex workers with training (and pay) to provide outreach as peer educators would improve the credibility and reach of prevention efforts.

4. *Strengthen VCT at the provincial level through provision of training*. VCT is critical as a powerfully motivational behavior change tool and as an entry point to support services and early medical care for opportunistic infections, ARVs, preventive therapy for TB, and prevention/treatment of STIs. The literature suggests that VCT is more effective at reducing risky behaviors than IEC alone (Coates et al., 1997). While more than one million blood samples underwent testing for HIV between 1996 and 2000, VCT services need to be marketed, and training in counseling is needed.

   Given the low levels of knowledge reported among medical personnel in Viet Nam, it is also critical to provide basic training in prevention, care, and treatment that assures compassionate and quality service provision. In addition to the increasing need for hospitals and community care programs to provide VCT, it is important that referral systems be established to appropriate palliative and curative services.

5. *Integrate STI services into health systems such as primary health care, maternal and child health/family planning, and other appropriate services to increase coverage among sexually active adults and sex workers*. Transmission of HIV is strongly associated with that of other STIs. Achieving reductions in STI transmission, particularly among sex workers and their clients with higher rates of STIs, is an effective way to help contain the spread of HIV in Viet Nam.

6. *Design and implement IEC campaigns that also address pervasive stigma*. Individual psychological approaches alone will not achieve changes in stigma and discrimination and must be complemented by campaigns to achieve social and community change. Prevention campaigns should combine goals for increasing knowledge and awareness of the modes of HIV transmission with goals to erase the perceived "differences" between groups of vulnerable and/or HIV-infected people.

7. *Facilitate public/private partnerships to expand HIV prevention programs*. The ever-increasing scale of the epidemic and its diverse problems are far greater than the resources or actions of any unilateral response. Broad collaboration is needed to address social, economic, demographic, and other impacts and make a difference in the lives of vulnerable persons. HIV-prevention efforts at the workplace should be targeted to the lowest wage, most vulnerable laborers. Integration of HIV prevention into major development projects that attract internal migrants should be a shared priority of the national government and international donors.

Cost-Effectiveness of Care and Treatment

As of 1999, about 7 percent of the total AIDS budget (or only about US$315,000) was allocated for treatment of HIV-infected persons, primarily patients with clinical AIDS. In 1998, government facilities provided free treatment to about 700 patients; one-third of the patients received zidovudine (AZT) alone and the remaining two-thirds received dual therapy with AZT, didanosine (ddI), and/or indinavir. Whereas clinical care includes treatment of OIs, government facilities did not routinely offer prophylactic treatment or TB screening, treatment, and preventive therapy of HIV-infected persons (Quan et al., 2000).

In 2000, more than 4,000 persons had undergone examinations and/or had received HIV/AIDS treatment. An unknown number were receiving ARVs (San et al., 2002). With a current estimate of more than 150,000 PLWHA, the number of people who will live with the disease in Viet Nam will obviously increase in the near future, necessitating an increase in available high-quality care and treatment. Providing care and treatment for PLWHA provides them with more years of economic productivity, which in turn supports and protects their families (MacNeil and Anderson, 1998). In June 2001, the UNGASS issued its Declaration of Commitment on HIV/AIDS, which called for a global obligation for increased access to a range of treatment, care, and support options. According to the declaration:

> By 2005, develop, and make significant progress in implementing, comprehensive care strategies to: strengthen family and community-based care, including that provided by the informal sector, and health-care systems to provide and monitor treatment to people living with HIV/AIDS, including infected children, and to support individuals, households, families and communities affected by HIV/AIDS […](paragraph 56).

Viet Nam's medical system at the national and provincial levels is facing serious challenges in gearing up for treatment of increased numbers of PLWHA. Evaluation of Viet Nam's national

AIDS program highlighted a lack of infrastructure, equipment for diagnosis of opportunistic diseases and follow-up treatment, medicine for specific treatment, and staff training. Community- and home-based models of care need to be systematically designed and implemented, and minimal care packages need to be produced and distributed. It will be equally important to establish partnerships between and among public health and medical authorities, PLWHA, NGOs, and communities at all levels to provide an adequate range of care and treatment services on a large scale. Greater attention must be given to ways that care and prevention activities can reinforce each other to increase the effectiveness and efficiency of interventions. Linking care and prevention activities seems particularly relevant in programs involving children, adolescents, and women who show a capacity to organize and address community problems.

Importance of Mobilizing and Involving PLWHA and Other Affected Communities

It is important to recognize the impact of stigma on prevention and care. Clearly, stigma creates a barrier to effective prevention, further facilitating the epidemic. Protection of human rights, including the right to participate in planning prevention and care, is critical for program credibility and success. The Greater Involvement of People Living with HIV/AIDS (GIPA) Principle, as established in the 1994 Paris Declaration, recognizes that PLWHA add value and impetus to the response. They personalize the epidemic and make it everyone's general health concern; the process of personalization, in turn, addresses the intensity of stigma and its effects and adds impetus for a change in norms essential to reducing risk-associated behaviors.

No formal network of PLWHA exists in Viet Nam, and no organization represents PLWHA interests. A recent review of HIV-related stigma (Busza, 1999) reports that "…both actual discrimination and fear of stigmatization affect transmission patterns and contribute to determining the success or failure of prevention and care and support efforts." Increased support, including financial support, is needed to bring PLWHA and other vulnerable and affected communities into a policy and program dialogue crucial for the design of high-quality and user-friendly services. There is also a need to address contradictions among policy, laws, and regulations that currently block effective prevention and care interventions and the involvement of the most vulnerable groups.

Resource Mobilization

Planning the optimal investment of human and financial resources in containing the early stages of the epidemic and thereby working toward solving the long term economic problems posed by HIV/AIDS is the best protection against the exhaustion of health resources as the epidemic progresses. In countries where the epidemic is more protracted, the response to the disease and its economic effects requires an enormous fiscal effort, the design of which is complicated. Mobilization in an environment of scarce fiscal resources must be augmented by a coordinated multisectoral response. The hypothesis is that knowledge of what works best from the fields of public health, medical care, care of orphans, child-rearing, education, and so forth can be distilled through strategic planning that gathers and focuses limited resources on combined programs of interventions. Although cost-benefit analysis of such programs may seem minimal, the true social rate of return to such programs can be extremely high (Bell et al., 2003).

This fiscal approach also supports the consensus among medical practitioners and policymakers that an "ounce" of prevention is worth more than a "pound" of care and treatment. Although the National AIDS Standing Bureau and the AIDS Department of the MOH have been quick to

assume responsibility for HIV/AIDS prevention and control and though a network of AIDS authorities has been established from the national to the local level, a tremendous disparity remains in resource availability between provinces and between levels of government. In some provinces where HIV/AIDS is an acute issue amid an environment of strong leadership, the local AIDS committees are strong and effective (e.g., Hanoi and Ho Chi Minh City) and coordinate a broad range of activities in cooperation with government, active mass organizations, and international NGOs. In other provinces, the lack of financial and human resources translates programmatically into a particularly low capacity to undertake prevention and awareness activities, training, and care and support for PLWHA. A greater degree of support should be provided at the provincial level to strengthen the capacity of committees and bureaus in the near future.

In 2001, Viet Nam's per capita state budget for HIV/AIDS prevention and control was about 800 Dong (or US$0.05)—a small amount in comparison with per capita expenditures of US$0.60 to 1.60 in Thailand. Increased government investment and better use of large-scale international assistance is needed.

Establishing a Social Safety Net for Mitigation

Like no other contemporary disease, HIV/AIDS threatens to bring with it social and economic shocks and systemic damage across many sectors. While economic reform in Viet Nam has led to greater prosperity in some parts of the nation, it has also resulted in a widening gap in the standard of living between people residing in urban versus rural areas, a gap that could broaden further in response to households' differential susceptibility to the impacts of HIV/AIDS (Bloom and Godwin, 1997). The potential magnitude of the disease's spread and the pervasive erosion of human capital must be countered by a coordinated and decentralized response that involves government on every level, mobilization of private sector resources to relieve the pressure on public systems, and community action. Because individuals and households first feel the burden of HIV/AIDS, the first line of response should be mitigation of the socioeconomic consequences on affected communities. In addition to bolstering the economic resources and income flows of households (through access to credit and savings, micro enterprise services, and linkage to markets), support is needed for creating community social safety nets. It is necessary to consider the economic stability of the entire community; if too many families slip into destitution, their needs can overwhelm the resources of the social safety net. The following essential elements comprise the safety net that keeps many households from destitution, mitigates the impact of HIV/AIDS, and builds the resilience of communities: material relief, labor, emotional support, palliative care, orphan care, ongoing prevention programs, and other assistance provided by community-based organizations and by community members sharing limited resources.

Participatory development approaches that involve affected communities in raising awareness about the impacts of HIV/AIDS should galvanize community responses to strengthening safety nets for the most vulnerable (often newly vulnerable) households. Viet Nam should undertake an in-depth assessment of the social and economic impact of HIV/AIDS and integrate HIV/AIDS prevention and treatment into national development plans and poverty reduction strategies. The government can spearhead the following activities to fortify social safety nets for mitigation:

- Develop strategies to provide children orphaned or made vulnerable by HIV/AIDS with needed social supports, such as assistance with continued schooling, shelter, nutrition, and health and social services;
- Address and eliminate stigma associated with HIV/AIDS in order that the disease is widely accepted as a social and community problem;

- Provide ongoing capacity building and empowerment interventions—for volunteers and community members and for community-based organizations—to mobilize communities and sustain the ability of families and households to cope with HIV/AIDS;
- Provide access to palliative care and necessary drugs and train/support health and community workers, caretakers, and counselors; and
- Recognize and address the special needs of orphans and children with HIV.

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